

Pregnancy Care and Neurofibromatosis Type 1 – A Case Report

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Background: Neurofibromatosis type 1 (NF1) is an autosomal dominant condition that can manifest with severe cerebrovascular and cardiac complications. During pregnancy, NF1 is associated with an increased risk of maternal morbidity, with greater rates of gestational hypertension, pre-eclampsia and intrauterine growth restriction¹. Obstetric care providers must be aware of the risks involved when caring for pregnant women with this disease.

Aim: To highlight management principles when caring for pregnant women with NF1.

Case: A 35-year-old primiparous woman with NF1 was managed at our centre. She had multiple café-au-lait macules and a 3cm right lower quadrant abdominal neurofibroma. The patient had a low risk first trimester screen and a normal morphology scan. She did not undergo genetic counselling. A multidisciplinary care model was used:

Specialty	Goal	Case Specific Outcome
Obstetric Medicine	Guide medical antenatal screening and care which involves updated cardiac and neurological imaging and screening for hypertension and pre-eclampsia.	An MRI brain was normal. A TTE revealed mild mitral valve disease. Blood pressure and pre-eclampsia screening was normal.
Anaesthetics	Anaesthetic review for spinal neurofibromas and scoliosis.	There were no spinal neurofibromas so there were no anaesthetic concerns.
Surgeons	Review abdominal neurofibromas.	History of a 3cm right lower quadrant abdominal neurofibroma. No intervention required during pregnancy.
Ophthalmology	Eye review for NFT1 associated disorders.	Recent eye review performed with no abnormalities.
General Practitioner	Ensure long term follow-up of NFT1.	Consider genetic counselling.

The patient presented multiple times for reduced foetal movements. An ultrasound at 35weeks revealed reduced growth velocity and a small for gestational age foetus. A breech baby boy was delivered via Caesarean section at 39 weeks.

Discussion: Women with NF1 require multiple specialist reviews for optimal antenatal care. A multidisciplinary approach involving obstetricians, obstetric medicine physicians, anaesthetists and the general practitioner is paramount.

References

1. Terry A, Barker F, Leffert L, Bateman B, Souter I, Plotkin S. Neurofibromatosis type 1 and pregnancy complications: a population-based study. American Journal of Obstetrics and Gynecology. 2013;209(1):46.e1-46.e8.